

# **Landsat Program**

## **Landsat Configuration Control Board (LCCB) Charter**

**November 2001**

# Landsat Program Configuration Control Board Charter

## November 2001

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## Abstract

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On October 1, 2000, the management of the Landsat 7 Mission Operations Center and end-to-end mission configuration management responsibilities transitioned from the National Aeronautics and Space Administration (NASA) to the U.S. Geological Survey (USGS). In preparation for this milestone, the USGS drafted this charter to outline the roles and responsibilities of the Landsat Program Configuration Control Board (LCCB) and the Landsat Interchange Technical Assessment Panel (LITAP).

The guidelines presented in this document along with the associated *Landsat Configuration Management Plan* and *Landsat Configuration Change Process* provide the overall framework by which the USGS will control the configuration of the Landsat Program and its associated systems. This document will be updated as necessary by the LCCB to allow the board to effectively serve the Program's CM needs.

**Keywords:** *Charter, Configuration Control Board (CCB), Landsat Program, U.S. Geological Survey (USGS).*

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## Section 1.0 - Background

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### 1.1 Project Background

This document in conjunction with the *Landsat Configuration Management Plan* and the *Landsat Configuration Management Process*—both identified in Section 1.2, supports implementation of the Landsat Program Configuration Management (CM) process. Specifically, this document provides the structure, membership, functions, and responsibilities of the Landsat Configuration Control Board (LCCB) and the Landsat Intersegment Technical Assessment Panel (LITAP). It also defines the relationship between the LCCB and the LITAP.

### 1.2 Applicable Documents

1. Landsat Configuration Management Plan.
2. Landsat Configuration Management Process.

## **Section 2.0 - Landsat Configuration Control Board (LCCB)**

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### **2.1 LCCB Description**

The LCCB's primary purpose is to manage the configuration of the Landsat Program's segments and coordinate the implementation of all intersegment changes. An intersegment change is defined as a form, fit or function change involving more than one operational segment. Furthermore, the LCCB is responsible for the management of interfaces between Landsat segments and external organizations. The following operational segments support the Landsat Program:

- Landsat Program Manager / Mission Management Office (MMO) (LCCB & LITAP Chair)
- Data Handling Facility (DHF) (including the DHF Configuration Control Board that represents the Landsat 7 Ground System, Landsat 7 Processing System, Image Assessment System, Landsat 7 Product Generation System, and the Mission Management Office Database System)
- Earth Sciences Mission Operations (ESMO) (also represents the Ground Network (GN) and the Tracking and Data Relay Satellite System (TDRSS))
- EROS Data Center (EDC) Archive Services (representing the Earth Explorer system)
- EROS Data Center (EDC) Production Services (representing the National Land Archive Processing System (NLAPS), the Distributed Ordering, Reporting, Research and Accounting Network (DORRAN) System, and the Product Distribution System (PDS))
- EROS Data Center (EDC) Distributed Active Archive Center (DAAC)
- Landsat Project Science Office (LPSO)
- Landsat 5 Mission Operations Center (MOC)
- Landsat 7 Mission Operations Center (MOC)
- LCCB Administrator (non-voting)

Intersegment change requests can, and will, address hardware, software, database, and documentation changes and may be forwarded to the LCCB through the LITAP by any of the operational segments identified above through each organization's respective CCB. The functions and responsibilities of the LITAP are outlined in Section 3.

The Landsat Program Manager will serve as the LCCB Chair. A single representative from each of the remaining operational segments will complete the LCCB's charter membership.

### **2.2 LCCB Membership and Attendance**

The charter membership listed in Section 2.1 identifies the LCCB's voting membership. Although this list identifies the voting membership, it does not preclude additional attendees at LCCB meetings. Attendance at these meetings by Landsat Configuration Change Request (LCCR) authors or a designated representative is highly encouraged. Furthermore, attendance by external organizations affected by a particular LCCR(s) is encouraged. Although the LCCB will vote on issues as appropriate, the Chair reserves the right to override LCCB decisions as appropriate to meet the goals of the Landsat Program. If designated LCCB members are not able

or do not wish to attend an LCCB meeting, the member is asked to provide a representative who can participate in the decision making process and commit their organizations resources.

## **2.3 LCCB Functions**

The primary function of the LCCB is to serve as the single decision-making body for change requests that impact more than one operational segment of the Landsat system. The LCCB is dependent upon the LITAP to provide sufficient technical analysis to ensure all aspects of a change request are properly considered. Armed with this technical analysis, the LCCB will decide on the proper implementation method for a given intersegment change request. Furthermore, the LCCB will coordinate the schedule for implementation of the change into all affected systems.

## **2.4 LCCB Responsibilities**

The LCCB is responsible for configuration management of the entire Landsat system. This overarching responsibility requires the LCCB to fulfill the following specific responsibilities. The LCCB will:

- Approve or disapprove all intersegment LCCRs forwarded by the LITAP.
- Assess the criticality of all approved intersegment LCCRs.
- Prioritize the implementation of approved intersegment LCCRs to ensure maximization of Landsat system resources.
- In the case of multiple implementation options, select the best option based on Landsat program goals and objectives.
- Appoint a lead organization for implementation of each approved intersegment LCCR.
- Approve the implementation schedule for each approved intersegment LCCR.
- Serve as the final arbiter for intersegment issues within the Landsat Program.
- Elevate Landsat Program issues impacting interfaces outside the direct control of the LCCB to the appropriate USGS or NASA management.
- Establish a procedure for addressing high priority (emergency or urgent) intersegment LCCRs in an expeditious manner.

## **2.5 Conduct of LCCB Meetings**

The LCCB will be convened at the discretion of Chair. The LCCB Administrator will provide an agenda for each LCCB meeting no later than three business days prior to each meeting. The agenda will include, at a minimum, a list of the intersegment change requests to be addressed during that LCCB meeting. In this manner, each LCCB Charter Member will be afforded the opportunity to review the requests prior to the meeting. The originator of each intersegment change request, or a designated representative such as the LCCB Administrator, will present each change request to the LCCB during the meeting. Following completion of each LCCB meeting, the LCCB Administrator will provide meeting minutes to all attendees.



## **Section 3.0 - Landsat Intersegment Technical Assessment Panel (LITAP)**

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### **3.1 LITAP Description**

The primary purpose of the LITAP is to serve as the technical advisory panel to the LCCB for all Landsat Intersegment Problem Reports (IPRs) or LCCRs. Generally, the LITAP will meet to review IPRs and LCCRs submitted by lower level CCBs. The LITAP will forward valid LCCRs with supporting analysis to the LCCB for action. This process allows the LITAP to formulate a technical position on each IPR and LCCR to speed the LCCB process.

### **3.2 LITAP Membership and Attendance**

Each LCCB Charter Member identified in Section 2.1 will provide a representative to the LITAP. This group will form the LITAP voting membership. Although this group serves as the voting membership, other attendees are encouraged to attend LITAP meetings. Attendance by the author of any IPR and LCCR is strongly encouraged. Furthermore, attendance by external organizations affected by a particular IPR or LCCR is encouraged. The Mission Management Officer will chair each LITAP meeting.

### **3.3 LITAP Functions**

The LITAP's primary function is to serve as the LCCB's technical arm. In this role, the LITAP has the authority to analyze IPRs and generate LCCRs as necessary along with reviewing LCCRs submitted by lower level CCBs. After performing sufficient analysis, the LITAP will forward valid LCCRs to the LCCB for action. Furthermore, the LITAP has the authority to request technical assistance from any of the Landsat Program's operational segments. The LITAP's role is to offload the technical analysis responsibility from the LCCB and allow the LCCB to manage the Landsat Program.

The LITAP's secondary function is to develop, implement, and administer an intersegment change request tracking system for the Landsat Program. The LCCB Administrator will administer this change request tracking system for the LITAP.

### **3.4 LITAP Responsibilities**

As previously stated, the LITAP serves as the LCCB's technical arm. This overarching responsibility requires the LITAP to fulfill the following specific responsibilities. The LITAP will:

- Review all submitted IPRs and intersegment LCCRs.
- Generate LCCRs for those valid IPRs requiring an intersegment change.
- Analyze all IPRs and intersegment LCCRs. Ensure each LCCR includes a detailed technical analysis prior to forwarding the issue to the LCCB.
- Approve intersegment detailed requirements and design information related to each LCCR.
- Provide the LCCB a recommendation to either accept or reject each LCCR.
  - If acceptance is recommended, provide:

- One or more implementation options as appropriate including the identification of an implementation method and the impacted operational segments.
- A Rough Order of Magnitude (ROM) cost and schedule estimate, and the benefits and risks (and possible mitigation strategies) associated with each option.
- A priority level recommendation based on the operational criticality and need date.

Additionally, the LITAP will maintain an electronic system to track and manage every IPR and intersegment LCCR. This system must be readily accessible by each Landsat operational segment. The LITAP is also responsible for providing change request status back to each operational segment. The LCCB Administrator will perform these duties in support of the LITAP.

### **3.5 Conduct of LITAP Meetings**

The LITAP will meet at the Chair's discretion. The LCCB Administrator will provide an agenda no later than three business days prior to each LITAP meeting. The agenda will include, at a minimum, a list of the intersegment change requests to be addressed during the upcoming LITAP meeting. In this manner, LITAP attendees will be afforded the opportunity to review the IPRs and LCCRs prior to the meeting. The originator of each IPR or intersegment LCCR, or a designated representative, will present each IPR or LCCR to the LITAP during the meeting. Following completion of each LITAP meeting, the LCCB Administrator will provide meeting minutes to all attendees.

## Appendix A - Abbreviations and Acronyms

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CCB	Configuration Control Board
CM	Configuration Management
DAAC	Distributed Active Archive Center
DHF	Data Handling Facility
DORRAN	Distributed Ordering, Reporting, Research and Accounting Network
EDC	EROS Data Center
EOS	Earth Observing Systems
ESMO	Earth Sciences Mission Operations
GN	Ground Network
IPR	Intersegment Problem Report
LCCB	Landsat Configuration Control Board
LCCR	Landsat Configuration Change Request
LITAP	Landsat Intersegment Technical Assessment Panel
LPSO	Landsat Project Science Office
MMO	Mission Management Office
MOC	Mission Operations Center
NASA	National Aeronautics and Space Administration
NLAPS	National Land Archive Processing System
PDS	Product Distribution System
ROM	Rough Order of Magnitude
TDRSS	Tracking and Data Relay Satellite System
USGS	U.S. Geological Survey